Social and Economic Aspects of Planning

Issues and Planning Criteria

Economic Concepts

PRESENTER: We're now going to take this slide that you've seen before and go into each piece in more detail. So we're going to look at what makes up economic value, look at this jobs and income versus benefit-cost and economic impact analysis in some detail.

And so, first off, what has an economic value? Only two conditions are necessary... that it be scarce and that it provides some people with enjoyment and satisfaction. This doesn't say anything about it having to have a market price. What's in the market, what's not in the market is a social choice. Alcohol was in the market. Prohibition took it out of the market. Did that change the fact that it had an economic value to people? Heck, no. They made it in their bathtub, right? I mean, we then put it back in the market. So what's in the market and out of the market is a social decision. The point is that something has an economic value. And it has an economic value even if people aren't required, you know, to explicitly pay for it or not. Again, that's part of the tradition of public lands.

So, you know, absence of price does not mean absence of value. You can have many things that we've chosen, like clean air. Clean air has an economic value to us. You it doesn't have an explicit price, right? There's not a meter that we have to pay for that air, but it has an economic value.

So one way to think of this is to -- economists talk about a total economic value. We

can sort of think of this total economic value, and, you know, price and revenue, those are like the tips of the iceberg. You know, that's the visible part, right, that's sticking above the surface. But there's a huge amount of value behind mere that is below the surface, and this may be recreation value. It may be amenities. It may be existence value. As Roy was talking about, these choices that affect not only our generation but generation after generation after generation, right? We give these long-term leases. Some of these developments are irreversible. That has a bequest value. That is not damming a river, not mining an area that's an irreversible effect then provides a value.

So what I do today, the decisions -- I might be willing to pay something for the Arctic National Wildlife Refuge. I've never been there. I may never go there, but I would like tie children or grandchildren to have that opportunity. So that's a bequest value. So there's a huge amount of value below the surface. And as economists we try to play detective. People have those values. You have those values. The public has those values. The trick is how do we as detectives in some sense bring that value forward in a monetary way? And we do that in a way that's consistent and commensurate with market prices with willingness to pay. So willingness to pay, as we'll see, it's sort of willingness and ability to pay, is one way we can capture those values that are broader than just market price.

The flip side is the economic impact analysis. That's what most of you are used to seeing. When people talk about economics, whether it's in a forest plan, a BLM

Resource Management Plan, an Environmental Impact Statement, that has traditionally been synonymous with economic impact analysis. And that's an important part of the picture, but it's not all of the picture.

So we look at income and employment at the county level. We look at wages. We look at profits. We look at employment changes. And many times, you know, this is a big deal, right? Wildlife viewer expenditure, logging expenditures, the expenditures that oil and gas companies make.

Now, these are expenditures, right? In some sense they're costs. They're not benefits in a national sense, right? I mean, when I spend money and go to the gas station and I put that in the gas tank of my car, that's a cost to me, right? It becomes a local positive effect. But it's a cost to me as the user.

Now, the other thing that you've seen in many cases, this direct spending and indirect effects, are known as these multiplier effects. So Roy in going to talk more in detail about these, but you have the direct, you know, either visitor spending or, say, the oil and gas -- you know, that's direct spending. Then there's a ripple or indirect effect. So when I buy a -- when I forget my camera and I buy one of those little disposable cameras, right, that disposable camera has, you know, a direct effect, but then there's a ripple effect, right? The retail sector, the wholesale sector, transportation. Same way these oil and gas, right? They buy stuff and it literally ripples throughout the economy.

And the multiplier -- it's going to be bad if I don't spell right on -- is the ratio of this total, which is the direct and indirect -- that's supposed to be a D -- over the direct effect. And that multiplier is usually, you know, 1.5, 2.5, meaning that each dollar of direct spending by the visitor will generate $1.50 or $2.50 worth of total spending. Or each new job, if this is direct jobs in oil and gas, or recreation -- you know, river guides, will generate one-and-a-half to two-and-a-half jobs. But the numbers in these rural economies tend to be very small because a lot of this money leaks out of the local economy. When I buy gasoline, right, I'm in Pinedale, I buy gas, they may be producing a lot of natural gas there, but there's not a refinery there, right? The refinery is in Salt Lake City. That money goes out. When I buy gas in Aspen or Vail, that money goes out of that economy. Only the local value added stays in the economy. And Roy will get into that in more detail.

Now, oftentimes we think about this income and employment as somehow creating new jobs that weren't there before, and that if BLM doesn't open this area for leasing those workers that would have worked there are just going to be unemployed. We're creating new jobs. Well, is that really true? If in fact these are new jobs, that would only be the case if these people would otherwise be unemployed. And a simple exam of that when I worked for BLM -- I started my career in Moab, Utah, and I'll draw a terrible looking -- I guess I better use another -- so this is something resembling the state of Utah, and they proposed over here by Hanksville to build the intermountain power project. 3,000 megawatt power plant. Now, as many of you know, right, there's Capital Reef National

Park, there's Canyonlands National Park, and there's Arches National Park there.

Hanksville wanted that power plant, but would it violate the class 1 air quality over those three parks, and so Cecil Andress, Secretary of Interior, was faced with a decision... does he give into the pressure in Hanksville and Kane County? Because that power plant is going to, quote-unquote, create jobs there. But that means we're going to violate class 1 air quality over these three national parks. That is a false dichotomy and a false trade-off. It looks like it's jobs versus the environment. Look, you're either going to have electricity -- you use electricity, don't you? Who doesn't use electricity? Well, we got to produce it. And, well, you know, the environment is nice to have. Well, it's not a trade-off. There's substitutes. Cecil Andress said, no, I'm not going to grant a variance to the class 1 air quality. They burned him in effigy, and the people, the county commissioners, right, "Well, we're all going to freeze to death in the dark then, right?" Those people that would have been employed there, all those jobs that were going to be created, they're not going to be there, right? Well, not true. If there's a demand for that power, it will be met. Where it is met, they will create exactly the same number of jobs.

Scott Matheson, who was governor of Utah, knew that. He said, well, can we build that power plant somewhere else? And those of you that know the story, that power plant got built up here in Delta and Lyndal. Same power plant. 3,000 megawatt power plant. Same jobs created.

If you take a very narrow accounting stance of Kane County, well, they were going to gain jobs if the power plant was built there. Without the power plant being built there, well, they lost these jobs, right? Well, did somebody put these workers in a spaceship and take them out to the international space station? No, the same number of jobs got created here. So that's what we mean when we talk about these jobs and impact analysis as being transfers. It's simply transfers of economic activity.

Same thing happened with the spotted owl. Did we go without paper? Did we go without wood because we took 4 million acres of critical habitat that was old growth and said, no, you can't log there? We needed that paper. We needed that wood. The beauty of the market is, if there's a demand for it, it will be produced. Where it is produced, they will gain the jobs. It's a wash. Macroeconomic policy that the Federal Reserve and why people worry about what Bernanke is going to do, that determines income and employment at the national level. We're kind of rearranging the deck chairs on the "Titanic." If we lease in one area, that's where the rigs go. That's where the workers go. If we don't lease there, it's not that those guys are going to go, "I guess we go home and we'll just sit on our hands for the next six months," right? If you don't lease there, they'll go somewhere else. That income and employment will be created there. It has important distributional consequences. That's why county commissioners, they're elected to represent their local constituency. That's a valid representation. But the Federal Land Policy Management Act is not a full employment act. It's not an

economic development act. NEPA requires us to look at the economic impacts. We want to be careful. Sometimes we fall into this trap that some BLM's action is creating net new economic employment when in fact it generally isn't.

The flip side and the other part of the economic analysis is to say, well, what are the benefits? What benefits do the consumers and users, right, the taxpayers in some sense, get? And this says, well, let's look at the net benefits, the benefits over and above the costs, and here's where we get to put these two pieces in some sense together. Let me grab this pen here. So we may have a case where the two pieces, for example, with a timber sale that's $100,000 of total revenue minus the $90,000 worth of costs. So that's an example, say, for timber, and when we talk about stumpage values, that is what we call producer surplus or sometimes you'll hear it referred to as the stumpage value.

Wildlife viewing is equivalent. This happens to be a market good. But conceptually it's no different. So if I'm out wildlife viewing, I have some total benefits, and that might be only $50,000. I might have very little in the way of expenditures. My costs, right, I'm a cheap skate, I eat sack lunch, I don't drive a Hummer, so there's not a lot of costs there, but the net benefits or consumer surplus is $40,000. And we see this with regard to cross-country skiing versus downhill skiing, hiking versus off-road vehicles, recreation vehicles, right? I mean, in some cases, an activity where there's a lot of spending has actually lower benefits to the user, right? I'm convinced Vail is designed to extract all

the consumer surplus that I get in many cases.

So when we look at this, there's two parts to this analysis. So if you're looking at this, which activity creates the greatest economic impact? Timber harvesting or wildlife viewing? For economic impact. For the grand prize, a free purple marker. Which one creates the greatest economic impact on the local economy? Timber harvesting does, right? There's $90,000 worth of costs. In fact, below-cost timber sales, deficit timber sales, syn fuels, right? This is a great deal. You produce, you know, a barrel of oil that you can buy for $90, it costs you $150 to produce it. I mean, things that have a lot of employment, have a lot of expenditures, create a great deal of economic impact, right? That ripple effect, that effect on the local economy.

Things that don't involve a lot of spending, though, have less economic impact. So wildlife viewing, yeah, may not have a lot of economic impact. Has a lot of value to the visitors. And so when the Federal Land Policy Management Act says to manage in proportion to the relative values, well the relative values of wildlife viewing or cross-country skiing or hiking might in fact have very high values to the users, particularly because it doesn't cost much. The fact that it doesn't cost much means I get to keep most of the benefits.

So we'll kind of go through some of those examples here and think about how do we tie all these multiple uses together. So multiple use commodities, oil and gas, coal, right,

they are at least competitive. We have a market and we have market prices. So, hey, doing the economics on that, that's easy.

Some things like AUM's, animal unit months of forage, or locatable minerals, those are sort of a market good, but in fact, the administrative price that BLM charges under different laws and so forth is only a fraction of the value.
So we've got to kind of infer what those market prices are, too.

CLASS PARTICIPANT: I have a question. Where does that number come from? How do you know what the benefit of wildlife viewing is?

PRESENTER: Okay. We will get to that here in just a moment. I mean, that's the third bullet here, and we'll get to that. I mean, that's what I spend a lot of time doing. That's a good question. Where does that wildlife and recreation value come from? Because there's not a market. So I will -- we will talk about that here a little today and then a lot tomorrow.

And, you know, your point is exactly, here we got recreation, water quality, wilderness. They're nonmarket. How do we estimate those values, right? And for values to be commensurate, we ask what people would be willing to pay. Now, we're not so foolish -- we know it's willing and able to pay. So we're going to ask visitors to get at the wildlife what they're willing and able to pay. We're going to use other techniques to get

at ranchers' willingness to pay. In some sense we're going to create a simulated market. Remember, I mentioned what? What's in the market, what's not in the market is a social choice. So we will use a simulated market to get at those -- to get at those values.